

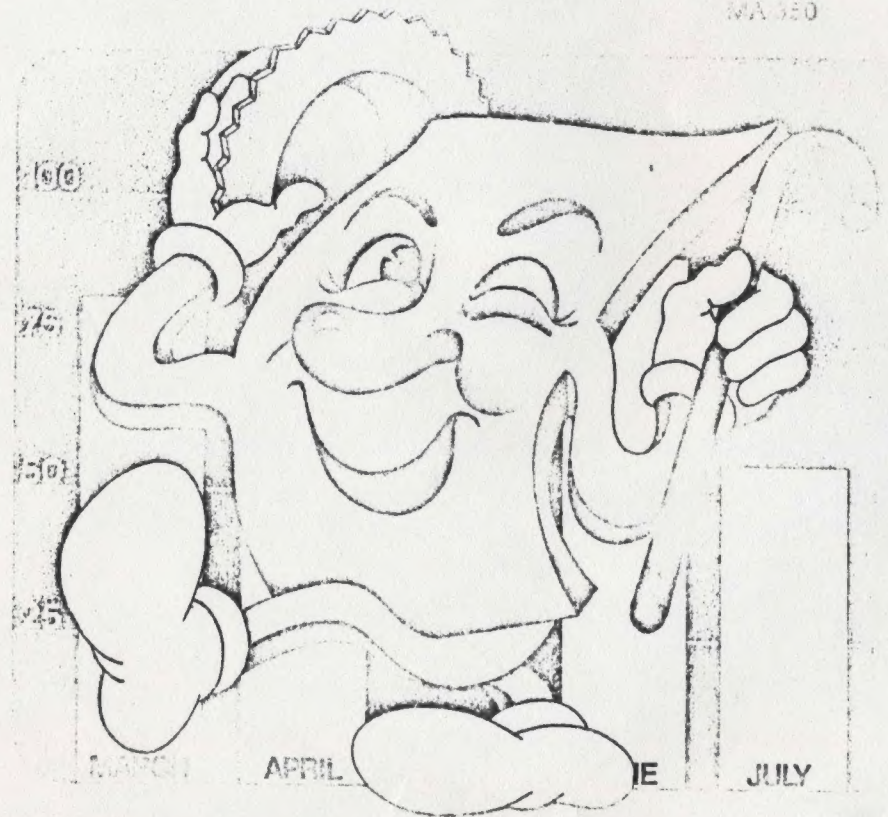
The Imagination Machine™

COMPUTER PROGRAMMING INSTRUCTIONS FOR

BAR CHARTS

One colorful bar chart is good. But, compared to what? Here's the way to have bar charts display a wide variety. Year-to-year, category-by-category or comparisons are easy.

WA 320



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BAR CHARTS

Bar Charts is a program designed to display your data in easily readable chart form. This makes it possible for you to see relationships and trends at a glance. It includes options for displaying one chart, two charts side by side or two charts woven together. Bar Charts will help you visualize how your budgeting is doing this year as compared to last year, how this year's investments compare with last year's, and how each salesman in your company is doing on a sales vs. profits comparison.

STARTING UP

After you have typed RUN, the "main menu" will appear. You will be offered the following choices:

1. Enter New Chart
2. List Titles and Change
3. Display Charts
4. Save to Tape

Press the number of your selection, 1 to 4.

ENTERING A CHART

Select 1 to enter your first chart. The program will ask you for the title of your chart. Respond with up to eight characters and press **RETURN**. Then, for each of the twelve bars in the chart, it will ask the following questions: 3 letter label for bar? And Value for bar? Press **RETURN** after each answer.

The value range is ± 999999999.9999 . If your chart does not require twelve bars, you can end the sequence by entering / and pressing **RETURN**.

After entering 12 bars, or if you have less than 12 and pressed the / key, you will be returned to the main menu. To create another chart, select 1 again and repeat the procedure. The program can store up to six charts.

NOTE: If all 6 charts are used, the computer will tell you and you must use mode 2 to delete a chart.

The following is an example of a chart and how you would enter it. The chart will be for your heating costs for 1979, 80. Title of chart is **Heat 7980**. The inputs are as follows:

3 Letter Label for Bar	SEP	Return Key
Value for Bar	89.00	Return Key
3 Letter Label for Bar	OCT	Return Key
Value for Bar	94.00	Return Key
3 Letter Label for Bar	NOV	Return Key
Value for Bar	92.00	Return Key
3 Letter Label for Bar	DEC	Return Key
Value for Bar	101.00	Return Key
3 Letter Label for Bar	JAN	Return Key
Value for Bar	115.00	Return Key
3 Letter Label for Bar	FEB	Return Key
Value for Bar	112.00	Return Key
3 Letter Label for Bar	MAR	Return Key
Value for Bar	120.00	Return Key
3 Letter Label for Bar	APR	Return Key
Value for Bar	90.00	Return Key
3 Letter Label for Bar	MAY	Return Key
Value for Bar	60.00	Return Key
3 Letter Label for Bar	JUN	Return Key
Value for Bar	62.00	Return Key
3 Letter Label for Bar	JUL	Return Key
Value for Bar	40.00	Return Key
3 Letter Label for Bar	AUG	Return Key
Value for Bar	0	Return Key

After entering the 12 items, the program returns to the main menu. Press 3 to display the chart you have just created. A submenu will appear, of which you select 1, which is single chart display. Again you are given a choice of charts, and you select the chart you want. In this case it will be Chart 2. Chart 1 is a sample chart, which we have entered to show you some things which can be done with this program.

NOTES ON DISPLAY

- 1a. The values of the vertical axis are selected by the computer. In some cases where the difference between two values is great, the lesser of the bars may not appear on the screen.
- 1b. Vertical axis values.
For a single chart display, up to a 13 digit number plus sign is shown for the vertical axis value.
For comparison on chain displays only, the 4 most significant digits of the vertical axis value are shown.
2. When viewing two charts chained together for comparison, negative values are shown by a (-) symbol on bottom of the screen. It is up to the user to determine which values are negative. This is not difficult, for example, - 10, - 5, 15, 25, 30, 40 would appear as shown:



☐ Negative Sign

3. When comparing two charts with different values, the computer will select the values for the vertical axis. Therefore, the left and right axis may be different.

LIST TITLES AND CHANGE

Selecting 2 from the main menu will display a list of the chart titles you have created. It will also ask for the number of the chart you wish to change.

Enter the number of a chart. If you press the /, the program goes back to the main menu. If you press a chart number, the program will print out the current title of that chart and ask if you want to change its title (Y or N). If you respond Y, it will ask what you want the new title to be.

Next, it will ask if you want to delete that chart. If you answer Y, it will display the list of titles again with that chart deleted. If you answer N, it will go on to display a table of that chart showing each bar, its label and its value and asking which bar # you want to change. Entering bar 0 will bring you back to the previous submenu of the list of F charts.

When you enter the number of the bar, the program will tell you its present label and ask if you want to change the label. Respond Y or N. If Y, type in a new label and press **RETURN**. If N, it will then display the present value and ask if you want to change it. If Y, enter a new value and press **RETURN**.

Finally, it will ask if there will be any more changes to this chart. If you respond Y, it will display the summary of the chart showing each bar, its label and its value and ask this set of questions again. Responding N will bring you back to the list of titles again.

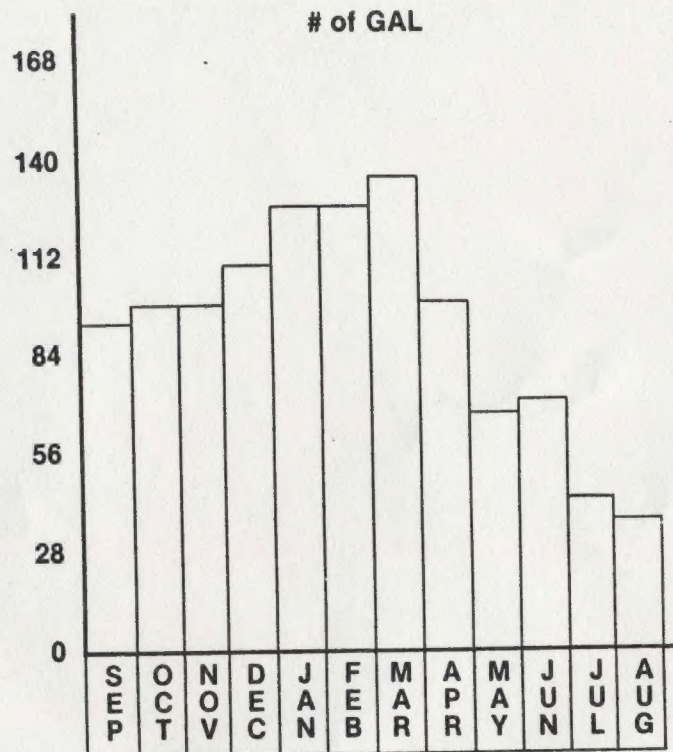
CHART DISPLAY

Selecting 3 from the main menu will enable you to see the charts. You will be offered the following options:

1. Single Chart Display
2. Chain Two Charts
3. Comparison of Two Charts

If you select 1, the program will display the chart of your choice. Selecting 2 and specifying which two charts you want, instructs the computer to show you those charts side by side, each in its own half of the screen. Entering 3 and specifying the two charts will get you an interwoven display, with Bar 1 of the first chart next to Bar 1 of the second, Bar 2 of the first next to Bar 2 of the second, and so on.

When you have finished looking at a chart, pressing **RETURN** takes you back to the main menu.



SAVE TO TAPE

Select 4 when you are ready to save the charts you have created on tape. Follow the instructions that appear on the screen. The program will save the chart names and dates you enter. Use a blank tape and you can develop as many tapes as you want to.

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